WAP #	Task Description	Statement of Work	Authorized Technical Representative	ATR E-Mail Address
100.0-005-03	Code 100 Editorial and Communications Support	The Contractor will provide extensive experience in the area of public communications, demonstrating in particular a high level of written and management skills and the ability to work with Goddard engineers and scientists, graphic artists, videographers, and animators to produce communications products that translate highly technical information into language easily understood by lay audiences. Primary support will be given to the Goddard Dept. of Communications and to the Office of the Chief Technologist.	Amato, Deborah A	deborah.a.amato@nasa.gov
130.0-003-02	Social Media Support for the Office of Communications	This work activity provides support for social media at NASA's Goddard Space Flight Center. This includes all science disciplines: Earth, Heliophysics, Planetary and Astrophysics. The contractor will focus on content development, methodology and outreach in order to enhance usage of this new method of science communication.	Kekesi, Deanna L	deanna.l.kekesi@nasa.gov
417.0-001-03	GOES-R Communications Support Services	The Geostationary Operational Environmental Satellites-R Series (GOES-R) is the next generation of geostationary weather satellites. The program is a collaborative development and acquisition effort between the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA). GOES-R communications efforts focus on conveying the value the mission brings to the nation and on preparing users for the new types of satellite imagery and data that will be available from the GOES-R satellite series. Audiences include key stakeholders, the science community, academia, international organizations, the general public, and federal, state, and local agencies. Contractors will supply experience in the area of public communications, demonstrating in particular a high level of written, management, and graphics skills and the ability to work with engineers and scientists, videographers, and animators to produce communications products that translate highly technical information into language easily understood by lay audiences. GOES-R coordinates education and outreach activities with NESDIS Headquarters, and the NOAA and NASA Offices of Education and Communications. Task members provide direct support to the GOES-R Program Office (GPO) in the areas of creating scientific and programmatic materials and providing the coordination and logistics support to accomplish tasks.	Karlson, Daniel K	daniel.karlson@nasa.gov
420.0-003-03	NASA Missions Science Writing and Outreach Support	The contractor will develop Earth Sciences feature stories with concentration on Goddard Space Flight Center, including: the upcoming GEDI, PACE and Landsat 9 Missions; web content for Goddard sites as well as press releases and articles based on Goddard Earth Science Mission activities, field campaigns, research and development. The contractor will support the Goddard Office of Communicatinos in its outreach activities.	Gran, Rani D	Rani.C.Gran@nasa.gov

443.0-001-03	JWST Information Management	This Work Activity coordinates and supports the use and security of JWST Program IT resources. Functions under this Work Activity include: A. Serve as application software administrator for JWST project applications, such as Doors (requirement tracking), Citrix (secure remote access), Matlab, Meeting Maker (calendaring). Where appropriate, administer server computers, hardware and software. Provide user support. B. Maintain JWST project IT security, including: 1. Coordinating and verifying patch and/or upgrade efforts for program wide servers and in conjunction with the HSTNet group as needed. 2. Interacting with HSTNet, Code 400 and GSFC Center IT security groups as well as those security groups from other entities working with the program (e.g., STScI, Prime contractor, instrument teams). 3. Ensuring JWST program compliance with computer security procedures (NITR 2810) and computer accessibility rules (Section 508 and the relevant NITRs) D. Administer Wolfworks Integrated Modeling Facility. Maintain workstations and AV equipment, install and upgrade system engineering software, maintain hardware, software, operating systems, network and IT security. Support the developers of the customized integrated modeling software tools as needed. E. Administer Windows and Macintosh computers located in the JWST Wavefront Control Testbed, responding to security or upgrade issues as they arise.	Johns, Alan T	Alan.T.Johns@nasa.gov
443.0-002-03	JWST Outreach Support	The contractor shall write and edit web features, press releases, brochures, fact sheets, video and multimedia scripts, podcasts and other outreach products for NASA's Office of Communications; Assist in development and execution of NASA media events; and respond to media inquiries. This task will specifically support the James Webb Space Telescope (JWST) In addition: * Research and interview Goddard and NASA scientists to find the latest NASA science stories * Write and revise, in concert with scientists and Office of Communications, features for NASA web sites and press releases * Work across new media platforms, i.e., iPad, blogs, social media * Help coordinate media events and media outreach for news releases or field campaigns * Help represent NASA science at conferences and events The contractor shall also support JWST public website content management and maintain a mission presence on social media such as YouTube, Twitter, Flickr, Facebook, etc.	Chandler, Lynn	lynn.chandler-1@nasa.gov
443.0-004-00	JWST Mission Integration Design Support	Provide mechanical design and engineering support to the JWST Mission integration team. The major task will be to provide support to the Observatory Integration and Test Manager to develop layouts for transporting the observatory from Northup Grumman in Redondo Beach, to the Ariane launch site in French Guiana. This will include layouts of the facilities at French Guiana and layouts of the payload in the transportation vessel (ship) to optimize space and preferred locations. A secondary task is providing design support to the CORE2 cryogenic test, which occurs at GSFC in the large Space Environmental Simulation (SES) vacuum chamber. This test is the primary core thermal validation test for JWST to ensure the mission thermal design will ensure the required science.	Marsh, James M	james.m.marsh@nasa.gov
448.0-001-02	WFIRST Electrical Systems Support	This work activity includes electrical systems support for the Wide-Field Infrared Survey Telescope (WFIRST) mission detector electronics development, and in particular the cold electronics architecture and implementation. WFIRST is a NASA observatory designed to perform wide-field imaging and slitless spectroscopic surveys of the Near Infra-Red (NIR) sky. The science data products produced by the WFIRST detector will help address essential questions in exoplanet and dark energy research and will advance topics ranging from galaxy evolution to the study of objects within the Galaxy and within the Solar System.	Content, David A	david.a.content@nasa.gov

470.0-001-03	Science Writing Support for JPSS	The contractor will write and edit web features, press releases, brochures, fact sheets, video and multimedia scripts, podcasts and other outreach products for NASA's Joint Polar Satellite System Mission (JPSS), Suomi National Polar-orbiting Partnership (Suomi NPP) and the Goddard Office of Communications. Staff will assist in development and execution of NASA media events; respond to media inquiries.	White, Khrista N	khrista.n.white@nasa.gov
544.0-002-03	CLARREO Mechanical Design	The Contractor will: 1. Design of transfer radiometer-to-sphere interface mechanics 2. Design interface mechanics for mounting Headwall imaging spectrometer (B Cooks new instrument) to equatorial mount with ND filters 3. Design revision activities for OPO Laser Alignment Framework (OLAF, the traveling laser table)	McCorkel, Joel T	joel.mccorkel@nasa.gov
551.0-002-03	JWST ISIM Optics Test Support	The Integrated Science Instrument Module (ISIM) Optics Team supports the James Webb Space Telescope (JWST) project at the Goddard Space Flight Center. The Optics Team supports optical verification of the ISIM Element (includes metering structure and science instruments) in the SES chamber. The contractor shall support the team in developing, documenting, and running the optical test plans, procedures, and data analysis tools required for ISIM Element level verification of optical requirements during the ISIM cryogenic vacuum tests. As requested, the team shall also identify key optical and/or data analyses that need to occur to prove feasibility of the recommended test or analysis approach.	Ohl, Raymond G	raymond.g.ohl@nasa.gov
551.0-003-01	JWST OTIS Science Calibration Support	The contractor shall perform a variety of data reduction and analysis tasks in support of James Webb Space Telescope (JWST) Optical Telescope Element (OTE) and Integrated Science Instrument Module (ISIM) science calibration and optical testing. This shall include the development of data analysis algorithms and procedures to explore a range of calibration and characterization phenomena for JWST instruments and the telescope. This shall also include shift work to perform quick-look analysis and/or test planning during 24/7 cryogenic vacuum test campaigns. In addition, the contractor shall perform optical engineering and other image and spectral data analysis to support these astronomy instruments. Contractor personnel shall work independently to develop detailed analytical methods and procedures based on high level science and engineering requirements, and shall also develop enhancements to software tools used for test planning and analysis.	Ohl, Raymond G	raymond.g.ohl@nasa.gov
552.0-001-03	Cryogenics Laboratory Support	This activity provides IT and property management support for the Cryogenics and Fluids Branch.	Delee, Charles H	hudson.delee@nasa.gov
553.0-001-00	Detector Characterization Laboratory Scientific Data Analysis Support	The Detector Characterization Laboratory (DCL) provides support for the characterization of detectors such as WFIRST, NEO, and other research and development projects. The contractor shall develop processes and algorithms, necessary software, and documentation. The contractor shall also assist in building test setups and actively participate in detector testing.	Miko, Laddawan R Nguyen, Lantrang N	laddawan.r.miko@nasa.gov lantrang.n.nguyen@nasa.gov

586.0-004-03	ESDIS Science Operations Office Support	This includes, ESDIS Metrics System, Education and Outreach, Systems Administration, Instrument interface support, and Web content development. Work activities for this WAP include: 1) Support the operation/development of the ESDIS Metrics Systems (EMS), and analyze the ingest, archive, distribution and user metrics and perform special metrics analyses. 2) Provide support for the development of a combined metadata system 3) Perform Digital Object Identifiers (DOI) support activities 4) Provide support to compile new missions requirements for missions that are/may be assigned to ESDIS. 5) Provide system administration support 6) Provide administrative and technical support to the ESDIS Project and Instrument teams, particularly supporting interfaces between the instrument teams, the DAACs and ESDIS 7) Provide documentation and web support. Specific task activities planned for each of the 6 major areas are listed in the Requirements section. 8) Communicate information about NASA EOSDIS data holdings, data information, services and tools using variety of communication mediums (e.g, social media, web, webinars, tutorials and print [when required]). 9) Foster communication with end-user community by supporting variety of Earth science events including specialized technical end-user workshops, select Earth science conferences, Earth science community meetings as well as virtually via NASA Earthdata social media accounts and webinars. 10) Plan, organize and deliver Earthdata monthly data discovery and data access webinars. 11) Participate in internal-agency social media and communications telecons and workshops, as required 12) Write news announcements, NASA EOSDIS "Who Uses NASA Earth Science Data?" User Profiles and feature or short articles within the following categories: Technology and Informatics, Data/Tools in Action, and Standards/Interoperability. 13) Write content/articles for other topics as assigned by NASA ESDIS and related project personnel. This content will be curated to use on the NASA Earthdata website, NASA Earthdata Facebook and GooglePlus account. 14) Select weekly NASA Earthdata image and write content for all Point of Interest (POIs) that accompany image. 15) Coordinate DAAC participation at approved conferences. For these, support conference planning, conference staffing and other logistic support. 16) Incorporate new communication techniques (e.g. social media) and research new venues or activities and ways in which to communicate about NASA's data, data center services, data tools using new or existing outreach material. 17) Maintain	Behnke, Jeanne	Jeanne.Behnke-1@nasa.gov
605.0-003-03	Science Proposal Support Office Services	The Science Proposal Support Office (SPSO) assists Goddard scientists and technologists in responding in a timely and effective manner to proposal opportunities offered by NASA and other Government agencies. Various SPSO services are available to GSFC civil servants and contractors, including proposal strategic planning, red team support, budget preparation, and NSPIRES data uploading.	Leisawitz, David T	David.T.Leisawitz@nasa.gov
606.0-006-03	SED Data Center Support	The Sciences and Exploration Directorate has established a consolidated Data Center to house servers that support Code 600 requirements. The goal of the consolidated Data Center is to better manage the Directorate's IT, to meet Agency mandates and initiatives for consolidation, and to address the need for a Data Center remote from Building 34 to support science users. This Data Center should be efficient and meet end-user needs. The servers should employ virtualization and redundancy where appropriate. The servers shall also support the Code 600 consolidated web site(s).	Kemper, Darnell E	darnell.e.kemper@nasa.gov
606.0-007-04	Directorate IT Security Support	The contractor shall support the Code 600 DCSE in planning/coordination, security process improvement, policy development, and metric collection.	Laubenthal, Nancy A	Nancy.A.Laubenthal@nasa.gov

606.0-011-03	SED Web Development Support	This work activity provides comprehensive support for the SED Web Group, which is responsible for supporting the SED web presence. A large component of the support is for the SED dynamic website, based on a MySQL database, with Cold Fusion code running in FuseBox. This activity also supplies the Code 600 web Editor-in-Chief who will work with the Code 600 Web Council and with the SED Assistant Director for Science Communication to continue the development and implementation of the Directorate's organizational website as well as to work with others across the Directorate to generally improve the SED's entire web presence. Support for web design is also included, wherein the contractor will support SED and CISTO web development efforts to design web site navigation, graphics, and layout.	Grofic, Barbara B	barbara.grofic@nasa.gov
606.1-002-03	HECN Network Support	The contractor shall provide a range of technical services from strategic network planning to operational network management to meet the HECN requirements of the CISTO. In particular, the contractor shall design and develop high speed network architectures, conduct networking technology assessment and product evaluation, perform network systems hardware and software installations and configurations, perform network system administration, and support network-related user help desk activities for the CISTO. The HECN task involves world class network engineering for advanced networking technologies, protocols, and applications, in such areas as optical networking, wave division multiplexing (WDM), fixed and adaptive wavelength transponders, single and link-aggregation of multiple 10-Gigabit Ethernets (as well as 40- & 100-Gigabit Ethernets), storage area networks (SANs), High Definition based video conferencing, wireless networks, multicasting, QOS/COS, dynamic circuit provisioning using MPLS/GMPLS, alternative TCP and UDP transport protocols, and application performance optimization for very high bandwidth*delay networks. This world class expertise is applied across LAN, MAN, and WAN environments, including across high performance international networks. SPECIFIC REQUIREMENTS ==>> New Network Planning and Design a. Requirements definition. Collect and analyze user/project requirements in terms of network capacity, capabilities, adherence to standards, science benefit, budgetary constraints, and timetables. Develop an understanding of network user goals and derived requirements. Define processing and throughput requirements to be satisfied. b. Research Alternatives. Research alternative possible solutions to achieve identified user/project network requirements, through searches and examination of network literature on relevant state of the art network technologies, discussions and meetings with network equipment and service providers on their new capabilities, and collaboration with other partner advanced network engineering staffs. Identify processing and throughput capabilities of vendor products such as handling of Jumbo Frames, round robin packet assignments, port load balancing, or achieving certain throughput. c. Design options. Develop network design alternatives utilizing available leading edge network components, evaluate and select the optimum design solution based upon extensive in-depth knowledge of technology areas, and devise and prepare for appropriate network prototyping activities in support of the selected design. d. Develop	Fink, William E	william.e.fink@nasa.gov
606.3-003-03	Direct Readout Data Systems Design and Development	The contractor will work with the ATR to evaluate performance and quality of compact VIS/NIR hyperspectral instruments through operational tests. Support ATR on new instrument development proposals.	Coronado, Patrick L	Patrick.L.Coronado@nasa.gov

| 606.4-001-03 | SVS System Administration Support | The Contractor shall provide computer systems architecture and administration support for the computer systems of NASA/GSFC Code 606.4, the Scientific Visualization Studio (SVS). These computer systems form a tightly coupled system consisting of desktop workstations, file servers, license servers, public and private web servers, render nodes, and compute nodes. The primary software for these systems (Autodesk MAYA, PIXAR Renderman/Alfred/Tractor, Adobe Production Premium, Exelis IDL, MySQL) enable these systems with the capability for designing, rendering, delivering, and documenting scientific visualization imagery and animations for the NASA scientific community and its associated outreach efforts. In addition, system administration support is also required for certain computer systems attached to advanced display systems, particularly stereoscopic and Hyperwall display systems. In performing the work, the Contractor shall: A. Manage, log, report, diagnose, and correct observed and reported software, hardware, and network problems; B. Implement, manage, and execute backups of supported computer systems; C. Manage and implement a secure computing environment by monitoring and reporting computer security problems, installing new and improved software, and proposing and implementing security practices; D. Perform operating system, compiler, and application software updates to maintain performance and security of the systems; E. Update and maintain information on the configuration of the systems being supported; F. Integrate new computers, peripherals and network switches/routers into the computing facilities listed above; G. Monitor and tune the SVS systems to improve performance and reliability in generating, archiving and scientific visualization products; H. Develop scripts, processes, and web pages as required to support system administration functions or other activities of the SVS; I. Develop and maintain on-line documentation of systems administration procedures; J. Travel to remote sites as necessary to support set-up, configuration, operation, and breakdown of visualization systems as required by SVS stakeholders. | Mitchell, Horace G | Horace.G.Mitchell@nasa.gov |

606.4-002-03	Goddard Multimedia and Animation IT Support	The Contractor shall provide computer systems administration support for the computer systems of the Goddard Multimedia and Animation task. In particular the Contractor shall install, configure, maintain, and monitor computer systems to ensure the availability, security, and performance of important Goddard TV and CI Lab's animation computing assets. The staff shall collaborate with animators and video producers in troubleshooting system problems and assisting users with hardware, software, or network problems. The Contractor shall perform general systems administration tasks to maintain MAC/Windows/Linux operating systems, manage user accounts, licensing, monitor systems, manage backups, and maintain system configuration documentation. In addition, IT security monitoring, patch management, and system audits shall be performed in accordance with Security plans and controls. In performing the work, the Contractor shall: A. Manage, log, report, diagnose, and correct observed and reported software, hardware, and network problems; B. Implement, manage, and execute backups of supported computer systems; C. Manage and implement a secure computing environment by monitoring and reporting computer security problems, installing new and improved software, and proposing and implementing security practices; D. Perform operating system, compiler, and application software updates to maintain performance and security of the systems; E. Update and maintain information on the configuration of the systems being supported; F. Integrate new computers, peripherals and network switches/routers into the existing computing environment; G. Monitor and tune computer systems to improve performance and reliability; H. Develop and maintain on-line documentation of systems administration procedures;	Kekesi, Deanna L	deanna.l.kekesi@nasa.gov
606.4-003-01	Earth Science Information Manager	The contractor shall support the synthesis of a broad spectrum of information, from a wide array of internal and external sources. The contractor shall also support the broader independent assessment, knowledge management activities, Division Communications, and review the processes of the organization for continued improvement. The contractor will assist the Science Mission Directorate at NASA HQ in the management of Division Communications - coordinating policy, technical and scientific information regarding the Earth Science Division. Duties will include but are not limited to: working with the Deputy Division Director to establish and implement strategy for communicating with the public, science community, and other stakeholders; serve as co-lead with the HQ Office of Communications representative for Earth Science for the strategic communications effort, Earth Right Now; collaborate with programs and projects within the Division and across NASA Centers to provide consistent messaging at the agency level; represent the Division at the Directorate communication group and SMD Web Council, and in interagency coordination as appropriate; oversee development and maintenance of products required to implement the strategies and communications. Position requires someone with a background in management, an understanding of space science missions, at both program and project level, and an understanding of NASA Headquarters processes and procedures used in managing Earth science missions. Requires minimal travel. May require one or two trips per year for conferences or meetings.	Wei, Ming-Ying	mwei@nasa.gov
610.0-002-03	MODIS Atmospheres Product Support	The task provides support for the maintenance of MODIS Joint Atmospheres product (MOD08) software and web sites related to Code 610 activities. In addition, the contractor will lead the MODIS Level algorithm Team and provide analysis and graphics for atmospheric research.	Platnick, Steven E	steven.e.platnick@nasa.gov

610.0-003-03	Special NASA HQ Requests Activities	The contractor will support activities associated with all aspects of special NASA HQ presentations and other requests. This includes support of the NASA Global Learning and Observation to Benefit the Environment (GLOBE) program and Earth Sciences EPO Forum.	Wei, Ming-Ying	mwei@nasa.gov
610.0-014-03	Terra Project Science Office Support	The contractor will support the Terra Project Science (PSO) office in the area of technical data acquisition, will aid in the preparation of reports, presentations, and published materials both directly related to Terra Project Science and related research efforts. Employee also provides editorial support to the PSO in the preparation of the response to the 2015 Senior Review Panel as needed. This review is bi-annual. The employee will assess the calibration quality of sensors related to the Terra project, including those systems that are used in combination with Terra instruments, such as the high-resolution imagery from Earth Observing System (EOS) sensors. The work relies on processing approaches developed by the contractor using IDL or similar software to evaluate the at-sensor and surface leaving reflectance and radiance from the sensors to be studied. The contractor will also refine and improve upon radiometric calibration techniques and methodology by incorporating the use of hyperspectral imager, image processing techniques, and statistical approaches. Corrections for surface directional reflectance, atmospheric, and sun angle effects will be incorporated.	Thome, Kurtis J	kurtis.thome@nasa.gov
610.0-016-03	System Adminstration Support for Hydrospheric and Biospheric Sciences Lab	This task will provide overall systems administration support for all subscribed computers, peripherals and networked devices used by the Hydrospheric Computering Facilities (HCF) and users in the Hydrospheric and Biospheric Sciences Laboratory. This task will also provide system administration support to the Laboratory's education and outreach activities as needed.	Kao, Rosa C	rosa.c.kao@nasa.gov
610.0-017-03	Support for the Science on a Sphere Exhibition	The contractor's primary responsibility is to support the installation and operation of the Goddard Science on a Sphere (SOS) systems, that are located in the Globe Theater at Goddard, the visitor center at Wallops, the Danville Science Center in Virginia, and the traveling SOS systems procured for SCAN-HQ. This includes designing and conducting visitor programs using newly created and existing data sets. The design effort frequently involves working with NASA Goddard's science community to bring new data sets to SOS. All of these data sets and programs are made available to the larger SOS User Community worldwide, to promote NASA's science mission. The data sets are used to enhance the use of SOS within the outreach community, to facilitate the worldwide growth of SOS. Work closely with NOAA and their designated vendor to achieve proper operation of the SOS systems.	Johnson, Torry A	torry.a.johnson@nasa.gov
610.0-018-03	Hubble Space Telescope Outreach Support	The contractor will provide sustaining engineering, development, upgrades, installations and de-installations of the Hubble Space Telescope (HST) Exhibit at GSFC Visitors Center and various other locations specified by the government.	Johnson, Torry A	torry.a.johnson@nasa.gov

610.0-020-03	Earth Sciences Division Systems Administration Support	The contractor shall provide independent technical expertise and leadership in computer technology services for the design, development and implementation of integrated computer processes and systems, followed by test and analysis, in support of the Earth Sciences Division and the Laboratory for Atmospheres. The contractor shall provide engineering services to analyze and implement data acquisition systems; plan and direct the implementation of computer-related hardware/software or information processing systems archival and distribution. The contractor shall provide general in-house computer software maintenance, including updating the customer's computing engineering strategy to ensure current state-of-the-art technology and serving as the interface between the customer and computing support function. The contractor shall provide leadership and insure that computing engineering solutions are cost effective, technically sound, and are forward looking. The contractor shall plan and direct the implementation of computer related hardware/software for information processing systems, archival and distribution. The contractor shall provide stability, reliability and security in the development and maintaining of computer processes and systems.	Schwaller, Mathew R	mathew.r.schwaller@nasa.gov
610.1-002-03	GMAO Computer Systems Management	The contractor shall provide computer system/user administration support for all GMAO staff. Specific subtasks are described in requirements below.	Kim, Gi-Kong	gi-kong.kim@nasa.gov
610.2-071-03	Global Change Master Directory Support	The contractor will provide data set, climate diagnostic, and related Earth science services metadata and make all available through an online search and retrieval system to a variety of groups, including: scientists, students, educators, and policy makers. Details are listed in the Requirements section.	Wharton, Stephen W	stephen.w.wharton@nasa.gov
610.2-072-03	International and Interagency Reporting Support	The contractor will support the Committee on Earth Observation Satellites (CEOS) International Directory Network (IDN) and Federal interagency metadata management and science activities. GCMD resources will be used in this effort.	Wharton, Stephen W	stephen.w.wharton@nasa.gov
610.2-076-03	Support for the Precipitation Processing System (PPS)	The contractor shall provide support for the Precipitation Processing System (PPS) in code 610.2 in two broad areas: the processing of TRMM data and the development of the Precipitation Processing System to support the GPM and potentially other precipitation missions. The requirements listed below reflect the needed support.	Stocker, Erich F	Erich.F.Stocker@nasa.gov
610.2-089-03	H-DISC Maintenance	This WAP supports ongoing activities within the Hydrology Data and Information Services Center (HDISC), including data-support for: - Routine ingest and archive of GLDAS, NLDAS and related data sets, including reprocessed data and data associated with affiliated projects (NCD-LDAS, FLDAS and others as identified). - Data reconciliation with data providers - Data distribution to the science user community - Support of data services (search, retrieval, access, visualization)	Vollmer, Bruce E	Bruce.E.Vollmer@nasa.gov
610.2-090-03	M-DISC Ancillary	The primary purpose of this activity is to guarantee that all ancillary data products required for GEOS-5 and MERRA assimilation processing is available within 24 hours of outage.	Kempler, Steven J	Steven.J.Kempler@nasa.gov
610.2-101-03	GES DISC Software Engineering	Enhance Giovanni4. Maintain and enhance as directed by the task monitor the following software components: o S4PM o S4PA o DQSS o SSW o Mirador o HTTP Services Framework Test and support installation of off-the-shelf software components, including: o OPeNDAP o GDS Also, initiate development on to-be-determined tools to support science users, as coordinate between the ATR and Lead Engineer.	Kempler, Steven J	Steven.J.Kempler@nasa.gov

610.2-108-03	GES DISC Operations	The GES DISC Operations task covers the operations of and operations engineering for all GES DISC systems. This task covers monitoring and supporting the nominal data flows, associated data tools, and webpages and resolving and recovery from anomalies and problems. The task also includes development of system utilities and automation to enhance monitoring/troubleshooting the systems beyond their delivered capabilities. Such system utilities and automation shall be upgraded to handle new anomalies and problems after they are encountered and understood. This task shall also include all data metrics reporting (including ingest, archive, and distribution) across the GES DISC with a goal of reducing effort duplication and establishing consistency of report for all GES DISC activity.	Alcott, Gary T	Gary.T.Alcott@nasa.gov
610.2-109-03	GES DISC Infrastructure	The contractor will provide support for the maintenance, enhancement and development of the GES DISC infrastructure and Web site. This support will include maintaining the current systems and backup of all data to ensure that GES DISC infrastructure and web site are continuously available to users. The contractor will ensure that GES DISC requirements and mandates from ESDIS, branch, division and center level are kept up to date and/or updated promptly.	Pham, Long B	Long.B.Pham@nasa.gov
610.2-110-03	GES DISC IT Security	Provide security support for the development, test and operational systems at the GES DISC. Ensure all GES DISC systems, infrastructure, people and information maintain all required levels of confidentiality, availability and integrity.	Wade, Gail S	Gail.S.Wade@nasa.gov
610.2-111-03	GES DISC Desktop Support	Provide all aspects of personal computer support for the GES DISC AND GCMD including hardware, software and data backup/restores, and logistic support. This work activity requires on-call support as defined within the terms and scope of the GES DISC AND GCMD on-call policy.	Wade, Gail S	Gail.S.Wade@nasa.gov
610.2-114-03	Earth Science Data Recovery	Coordinate data recovery efforts and archive the recovered NASA Earth Science data at the GES DISC. The result of this task, based on media recovery contractor's recovery performance, is to verify the recovery of the original media contents, extract science data, prepare the data for public release and archive the raw and processed science data.	Alcott, Gary T	Gary.T.Alcott@nasa.gov
610.2-122-03	GES DISC Data Exploitation	This task includes original, ongoing, and support work that address the use, usage, and usability (i.e., exploitation) of GES DISC data, by discipline/instrument, cross discipline/instrument, and in collaboration with non GES DISC disciplines/instruments (as appropriate) All requirements in this WAP shall be performed on behalf of GES DISC datasets (resident and value-added) and past projects in sustained maintenance mode covering the following disciplines: - Atmospheric Chemistry - Aerosols - Atmospheric Dynamics - Hydrology (ground, precipitation, Water and Energy Cycle) - Modeling (i.e., MERRA, NLDAS, HLDAS, AIRNOW, etc.) - MEaSUREs All requirements shall be fulfilled through cross discipline coordination, except for requirements that are intrinsically dataset/discipline unique. This WAP shall include staff of science data specialists that have science expertise in the above disciplines.	Kempler, Steven J	Steven.J.Kempler@nasa.gov

610.2-123-03	GES DISC Data Preparation	This work activity includes system and data preparation for the routine support of datasets generated by new missions/instruments, sustaining the availability of datasets generated by existing missions/instruments, the integration of new versions of existing data sets and the implementation of techniques and methods that further promote the availability of datasets generated by missions/instruments/projects. Activities include data set planning with data providers, interface documentation, metadata specification, data product specification, sample data evaluation, data set documentation, integration and test of algorithm software, identification of essential services and a successful transition to routine support of ingest, archive and distribution. All requirements in this WAP shall be performed on behalf of the following GES DISC datasets/missions/projects(sub-tasks): Aura OMI / MLS / HIRDLS OCO-2 / ACOS SORCE / TCTE Aqua AIRS GPM / TRMM MERRA / MERRA-2 NLDAS / GLDAS SNPP Sounder SNPP OMPS Carbon Monitoring System (CMS) CMR Transition Sustaining support for * LANCE AIRS * LANCE MLS This includes the integration appropriate products and services into the near real time systems for AIRS and MLS. Troubleshoot NRT science data processing and data distribution services as needed. Provide documentation on NRT products and services and make these available to the NRT web site as appropriate. Provide off hours monitoring and troubleshooting of the NRT systems. Provide interface support to ECHO, GIBS and other external groups as needed. Sustaining the availability of datasets generated by existing missions/instruments will include: * Acquisition and support of Digital Object Identifiers (DOIs) for GES DISC data sets * Consistent population of GCMD DIFs and related repositories * Transition from DIF9 to DIF10 in support of the transition to the Common Metadata Repository (CMR) * Population of Dataset Landing pages and related web content This WAP shall include staff with data engineering and science data specialists that have above mission/project expertise.	Vollmer, Bruce E	Bruce.E.Vollmer@nasa.gov
610.2-128-02	RSS - GMI Calibration and operations	Provide continued calibration support to PPS for the GMI level 1 calibration. This shall include linearity checks, antenna pattern corrections (as requirements), and moon intrusion. Earth scene intrusion corrections once sufficient data has been collection so that corrections can be made during reprocessing. Ongoing analysis of the 1B/Base calibration to ensure that GMI calibration continues as the highest level to enable it to be used as the constellation reference instrument. It is recognized that some of this work requires the collection of more than just a few months of data. In addition, much of the work and analysis is ongoing and continually monitored.	Stocker, Erich F	Erich.F.Stocker@nasa.gov
610.2-131-01	Sounder SIPS	GES DISC will develop and operate the Sounder Science Investigator Led Processing System (SIPS) science Data Processing System (SDPS) for integrating scientific software and processing Suomi NPP (SNPP) sounder data in coordination with the Sounder SIPS Principal Investigator at NASA JPL. The Sounder SDPS will provide the capability of routinely processing of SNPP sounder data products from both the Advanced Technology Microwave Sounder (ATMS) and the Cross-Track Infrared Sounder (CrIS) instruments based upon experience and expertise with the AIRS SDPS. The Sounder SDPS will run Level 1, 2 and 3 PGEs in an operational environment to produce standard data products, associated browse products and near real-time (NRT) products on a routine basis. Data Products generated within the Sounder SDPS will be transferred to the GES DISC for archive and distribution to the science community.	Vollmer, Bruce E	Bruce.E.Vollmer@nasa.gov

610.2-132-01	GES DISC MEaSURES	Nine MEaSUREs Projects associated with the NASA MEaSURES 2012 Program will be delivering datasets to the GES DISC for archive and distribution. This WAP constitutes the "MEaSUREs Mission at the GES DISC" in support of this activity. These datasets will require joint planning with the dataset providers and DISC staff to ingest, archive and distribute these data to the science user community. GES DISC will provide operational science data support for these datasets. The GES DISC approach is to implement a standalone system that re-uses GES DISC system components (e.g., S4PA) that will house the data archive and distribution of all 9 projects. Appropriate capabilities for data archive, search, and access afforded existing GES DISC datasets will also be provided to the MEaSUREs datasets. Advanced data services (e.g., subsetting, format conversion) will be investigated and implemented where appropriate. Data set preparation includes metadata and data product specification, read software, S4PA configuration, metadata publication, identification of access methods (FTP, Mirador, ECHO, OPeNDAP, etc.) Data set documentation must be compiled including README files, GCMD DIFs, Interface Control Documents (ICDs), Operations Agreements, acquisition of data provider user guides and composition and maintenance of GES DISC MEaSUREs web portal pages. Hardware to support the MEaSUREs data repository must be specified, procured, installed and configured for use. Where possible, existing systems may be leveraged to support the MEaSUREs Mission. Data reconciliation must be performed between the GES DISC archive and the data provider. As part of operational science data support data verification must be performed on selected data files. As part of the preparation and planning activities for MEaSUREs Mission it is a goal to establish a uniform approach to address data preservation, interoperability, data provenance and related topics for MEaSUREs Mission data. This may be accomplished through interaction with the appropriate NASA ESDSWG Working Groups, ESIP Federation committees or other groups as appropriate. Per direction from the MEaSUREs Program, final versions of the MEaSUREs Project data may be vetted through the GES DISC User Working Group. Criteria for accepting and certifying ESDRs (final products) will be developed and provided to the UWG and to MEaSUREs PIs (e.g., documentation, file format, metadata).	Vollmer, Bruce E	Bruce.E.Vollmer@nasa.gov
610.2-133-01	GES DISC Unified User Interface (UUI)	The goal of the Unified User Interface (UUI) is to provide a consistent user interface to access and utilize the main services that the GES DISC provides to users: 1. Access to information and documentation. 2. Requests for data or data subsets (i.e., the services currently provided by SSW and Mirador). 3. Granule-level inspection (aka browse) and selection of data (as currently provided by Mirador). 4. Visualization and analysis of data (as of Giovanni).	Pham, Long B	Long.B.Pham@nasa.gov
610.2-134-01	NCO for Swath-Like Data	The goal of this work activity is to add capabilities to the netCDF Operators (NCO) package (heavily used within both Giovanni and NextGen ESG), specifically to support Level 2 (aka Swath-like data). Our role is to infuse that technology into Giovanni and HTTP Services / SSW. This task planned in two work activities/requirements, first is a science related work to be completed by the end of CY15, and the second is and engineering skilled requirement to be completed by the end of CY16 (details in the requirements section).	Kempler, Steven J	Steven.J.Kempler@nasa.gov

610.2-135-01	Dark Data	This work activity will addresses the core AIST topic of Data-Centric Technologies, with a particular focus on utilizing semantic technologies to explore, visualize, and analyze representations of semantically identified information in order to discover new useful information - directly addressing the subtopic, Alternative Approaches / Disruptive Technologies for Earth Science Data System. This project will develop a Semantic Middle Layer (SML) consisting of a content based image retrieval service to provide for visual search for events or phenomena in Earth science imagery; an ontology based data curation service which uses structured metadata and descriptive text to find data relevant to that event, phenomenon, or thematic topic; and a semantic rule based processing service to create curated data albums consisting of data bundles and exploratory plots generated on the fly. Together these components will allow users to identify events of interest in images and assemble a collection of pre-processed data to support scientific investigations focused on these events.	Kempler, Steven J	Steven.J.Kempler@nasa.gov
610.2-137-01	GPM Microwave Imager (GMI) On-orbit Characterization	The Precipitation Processing System (PPS) has the leading responsibility for the development and maintenance of the level 1 products including the instrument counts, antenna temperature and brightness temperature. This responsibility requires PPS to have a strong understanding of the design, operation and health of the GPM Microwave Imager (GMI). PPS provides considerable internal expertise in these areas. However, PPS need to gain a unique insight into the GMI to maintain the best and most accurate calibration of GMI to ensure that the Level 1 products are the most accurate. Additionally PPS has major responsibility to the Precipitation Measurement Missions (PMM) science team Intercalibration (X-Cal) working group to provide them a detailed up-to-date assessment of the state of GMI, as GMI is the reference calibration instrument used to intercalibrate the other radiometers provided by partners in the GPM mission.	Stocker, Erich F	Erich.F.Stocker@nasa.gov
610.3-003-03	Earth Science Story Development	The NASA Earth Science News Team has responsibility for promoting newsworthy Earth Observing System, and other NASA-funded Earth Science research through the news media. This includes content from all NASA centers, including Ames, JPL, Goddard, GISS, Wallops and Langley	Mitchell, Horace G	Horace.G.Mitchell@nasa.gov

611.0-001-00	GISS Systems and Operations Group Management	responsible for coordinating and managing the administration of a heterogeneous network of Linux, Windows, and Macs computers as well as, printers, and some network hardware, including but not limited to VoIP hardware. The position involves being hands-on, in all aspects of the administration of the facility including: researching and making recommendations on technical strategic solutions, preparing policy and procedure documents and implementing them, ensuring compliance with NASA and Federal policy concerning security, and reporting on same; configuring and maintaining servers and services for GISS on a variety of hardware and software platforms. The Systems and Operations Group Manager reports to the project manager, leads a team of 3-5 technical experts and serves as liaison to scientists, users, vendors, contract managers and other groups. Essential duties are: Manage Key Relationships: - Lead a team of 3-5 employees - Report to the Project Manager - Support Scientists/Users - Interact with Head Office, GSFC, WFF and MSFC - Interact with HP and ACES Lead Managers - Interact with Vendors - Interact with Contract Managers Mitigation of Risk/Compliance - Implement NASA's Information Technology Security policies at GISS to protect data, software and hardware. - Manage, operate, and maintain GISS computers and related equipment. - Manage a maintenance program across the GISS computing facility to ensure that GISS Reliability, Maintainability and Availability (RMA) requirements for all system components are properly identified and met; evaluating vendor maintenance costs and plans; providing scheduled preventive maintenance and maintaining a parts inventory for critical systems; providing in-house, qualified System Administrative staff. - Work with the CSO/ISSO to identify and defend against security vulnerabilities; advance the ongoing implementation of Full Disk Encryption for desktop workstations via Symantec PGP and Filevault 2; keep the GISS system concurrent with the Code 600 System Security Plan (SSP); ensure IT staff have been properly informed and/or trained in SSP auditing procedures. - Work closely with the DCSEs (Security Engineers/Code 600) at HQ and Code 700. Respond to security incidents, investigate causes and, with advice from NASA security engineers, repair and coordinate repair of compromised systems. Promptly deal with vulnerabilities, and submit needed waivers via VST (as detected by KACE and Foundstone scans). - Inform all users of the GISS IT "Rules of Behavior" document and obtain copies of all electronically signed forms for all the GISS personnel. Ensure	Michaud, Emily	emily.michaud@nasa.gov
612.0-006-03	Remote Sensing of Sea Surface Salinity	The contractor will support research on remote sensing of sea surface salinity and soil moisture. Work will include provision of modeling, analysis, and algorithm development in support of the Aquarius and SMAP missions. Work will also include support of calibration and validation of data using instrument simulators and ancillary data.	Levine, David M	David.M.LeVine@nasa.gov
612.0-008-03	Mesoscale Atmospheric Processes Laboratory Systems Administration Support	The contractor will provide System Administrative support to the Mesoscale Atmospheric Process Laboratory/612. Work activities are detailed in the Requirements section.	Jackson, Gail S	gail.s.jackson@nasa.gov

613.0-001-03	Climate and Radiation Laboratory Systems Administration Support	The contractor will provide general support to plan, acquire, deploy, administer and maintain Climate and Radiation Laboratory scientific IT systems. These systems include web, ftp, filesharing and general purpose computational servers, scientific workstations, notebooks and local printers. Support will include network services, systems and accounts administration, software installation and patching as well as systems monitoring to meet Agency IT security and reporting requirements. Workstation and notebook administration will include the approximately 80 Mac and Linux systems now in service in the Laboratory. The contractor will provide onsite technical support to Lab staff to facilitate use of all Laboratory IT systems. The contractor will provide backup support for Lab Windows PCs.	Oraiopoulos, Lazaros	lazaros.oraiopoulos-1@nasa.gov
613.0-002-00	Climate and Radiation Laboratory Desktop Administration Support	The System Administrator is responsible for effective provisioning, installation/configuration, operation, and maintenance of systems hardware and software and related infrastructure with a focus of end user support. This individual ensures that system hardware, operating systems, software systems, and security procedures adhere to organizational values. This individual may assist project teams with technical issues in the Initiation, Planning and Execution phases. These activities may include the definition of needs, benefits, and technical strategy; research & development within the project life-cycle; technical analysis and design; and executing, testing and rolling-out the solutions. This individual is accountable for the following systems: Windows XP & 7, Mac OSX 10.10 & 10.11 Typical responsibilities may include -Answering technical queries and assisting users. -Remote management of systems. -Network management and scanning -Analyzing system logs and identifying potential issues with computer systems. -Introducing and integrating new technologies. -Performing routine audits of systems and software. -Performing backups. -Applying operating system updates, patches, and configuration changes. -Installing and configuring new hardware and software. -Adding, removing, or updating user account information, resetting passwords, and disk quota assignments -Responsibility for security -Responsibility for documenting the configuration of the system or procedures for use of specialized processes. -Troubleshooting any reported problems and working closely with vendors and service providers to quickly resolve issues that are covered under system maintenance and maintain maximum availability of all computational resources required by the facility and users. -System performance tuning.	Oraiopoulos, Lazaros	lazaros.oraiopoulos-1@nasa.gov
614.0-004-03	Aura Validation Data Center Support	This Work Activity supports the development and maintenance of the Aura Validation Data Center (AVDC). This includes adding ground support station data to the center, by maintaining existing and creating new Field of View predictions and overpass data.	McPeters, Richard D	Richard.D.McPeters@nasa.gov
614.0-008-03	MEaSUREs SO2 Product Development	The contractor will provide support for development of SO2 products using data from OMI, TOMS, NIMBUS 7 and other instruments designated by the ATR.	Krotkov, Nickolay A	nickolay.a.krotkov@nasa.gov
614.0-009-03	MEaSUREs Aerosol Product Support	The contractor will produce UV aerosol products based on Nimbus 7 TOMS, Earth Probe TOMS, Meteor 3 TOMS, OMI and SCAIMACHY data. This includes a global calibrated 340 and 380 nm radiance product. The existing OMAERUV algorithm will be applied to other instruments. A daily gridded UV Aerosol Index product and monthly gridded AOD and AAOD products will be produced. A UV Aerosol Index Simulator based on the paper by the Ginoux and Torres will be developed. A MEaSUREs Aerosol web site to display project status and distribute preliminary data will be created and maintained. Also, the contractor will participate in NASA's Earth Science Data Systems Working Groups (ESDWGs).	Torres, Omar O	omar.o.torres@nasa.gov

615.0-001-03	AMSR-E Sea Ice Algorithm Validation and Refinement	The contractor will support the development and validation of sea ice algorithms for satellite based microwave data. This includes validation of the AMSR-E and AMSR2 sea ice products and refinement of the corresponding algorithms. The contractor will develop technical reports and research articles based on task work.	Meier, Walter N	walter.n.meier@nasa.gov
615.0-003-03	Remote Sensing Studies of Sea Ice	The contractor will develop and update satellite data sets regarding sea ice and climate; calculate and plot a variety of statistics based on satellite data; and map sea ice and climate variables from satellite data. The contrator will update Cryosphere Lab archives with processed data. The contractor will support the ATR on development of research articles.	Comiso, Josefino C	Josefino.C.Comiso@nasa.gov
615.0-004-03	Cryosphere Branch Outreach Support	This work activity supports outreach activities of the Goddard Cryosphere Laboratory. Staff will develop cryosphere-related news stories and alerts and act as liaison to the Goddard Dept. of Communications Office and the Earth Sciences News Team. Staff will be the point of contact for GSFC cryosphere-related outreach activities, including the design of overview slides, posters and other outreach material for Goddard management and NASA HQ. Staff will also support design and content development for laboratory websites.	Markus, Thorsten	Thorsten.Markus-1@nasa.gov
615.0-005-03	Operation IceBridge Science Programming Support	This work activity will provide science programming support for the Operation IceBridge team at NASA Goddard. Operation IceBridge will gather large amounts airborne data from numerous instruments over sea ice and ice sheets. Airborne instruments include Lidars, Radars, high resolution cameras and a gravimeter. The contractor will develop technical write-ups of algorithm development and data analysis results.	Kurtz, Nathan T	nathan.t.kurtz@nasa.gov
615.0-006-03	AMSR-E Sea Ice and Snow on Sea Ice Support	This work activity provides programming support for the analysis, validation, and utilization of satellite passive microwave snow and sea ice retrievals. Specific work includes: development of new snow and sea ice data products as well as improvement of existing products; retrieval and archiving of snow and sea ice data for use in studies; preparation of graphics for presentations and scientific papers; and documentation of algorithms and datasets.	Meier, Walter N	walter.n.meier@nasa.gov
615.0-008-03	Physical Oceanography Model Support	This activity provides support to develop, test and run oceanographic models. The contractor will support the ATR's research effort. The contractor will support writing technical articles describing the research.	Hakkinen, Sirpa M	Sirpa.M.Hakkinen@nasa.gov
615.0-010-03	Science Writing Support for the IceSat Mission	The contractor will provide science writing support for the ICESat 2 Mission. This support will include press releases, feature articles, web content, and other outreach materials.	Markus, Thorsten	Thorsten.Markus-1@nasa.gov
617.0-001-03	Systems Administration Support for Code 617	The contractor shall provide systems administration support for Code 617.	Santanello, Joseph A	joseph.a.santanello@nasa.gov

617.0-002-03	Global Precipitation Mission Outreach Support	The contractor will populate and maintain a GPM website content management system and the GPM website within the www.nasa.gov portal. The contractor will work with IT staff to implement and maintain required security procedures. Work will include working with mission staff to determine changes and implement necessary to the homepage, site pages, navigation, information architecture and functionality, and creating web implementations of selected graphics. The contractor will maintain documentation related to the site. The contractor will work with mission scientists and Goddard Office of Communications staff to maintain and update as needed the Education Plan for the GPM Mission. The Contractor will supply an independent assessment of the plan and make modifications as directed by the ATR. The contractor will engage with the NASA Earth Science community, serve on working groups and participate in telecons, tag-ups and other activities in order to understand the types of E/PO projects currently active at NASA. As part of the task, the EPO specialist will support the Coordinator of Earth Science Education and Public Engagement in the Earth Sciences Division to oversee, develop, implement and coordinate several ongoing educational projects funded by the agency and the Division, including our partnership with the GLOBE Program (http://globe.gov) and our increased interaction with other Federal agencies. Duties and responsibilities: 1) Work closely with the EPA, Smithsonian, and other federal agencies on the redesign of the Girl Scout "Waterways" badges and patches 2) As feasible, work to connect 610 scientists and/or missions with local schools for hands-on activities or school visits. 3) Attract, select, and maintain a vibrant group of 25 educators from around the world to participate in a collaborative Professional Learning Community known as the "GPM Master Teacher Program" 4) Work with other Earth Science missions to develop and lead educator professional development that occur in various formats: FTF, online, and hybrid versions thereof	Kirschbaum, Dalia B	dalia.b.kirschbaum@nasa.gov
618.0-001-03	Landsat 8 Database Support	The contractor will provide database maintenance support for the Landsat 8 project.	Markham, Brian L	brian.l.markham@nasa.gov
619.0-001-03	OMI/Ozone SIPS Development and Operations	The contractor will provide support for the Science Data Processing System used for the Ozone Monitoring Instrument (OMI) and Ozone Mapper Profiler (OMPS) Science Investigator-led Processing System (SIPS). The system will also used for processing data from other instruments, such as Total Ozone Mapping Spectrometer (TOMS).	Masuoka, Edward J	Edward.J.Masuoka@nasa.gov
619.0-002-03	Systems Administration Support for Laboratories within Code 610	The Contractor shall provide systems administration and technical support for on- and offsite Government personal computers; Linux servers and workstations; Internet and infrastructure services; and peripherals.	Masuoka, Edward J	Edward.J.Masuoka@nasa.gov
619.0-003-03	System Administration and Engineering Support for the Terrestrial Information Systems Lab	The Contractor shall provide computer systems administration support for the following: 1) the MODIS Adaptive Processing System (MODAPS); 2) the MODIS Team Leader Science Computing Facility (TL-SCF); the Science Investigator-led Processing System (SIPS) for the Ozone Monitoring Instrument (OMI); 4) the Land Product Evaluation and Test Element (PEATE) for the Visible/Infrared Imager/Radiometer Suite (VIIRS) on the Suomi National Polar-orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP); and 5) the PEATE for the NPP Ozone Mapping and Profiler Suite (OMPS). In performing the work, the Contractor shall:	Masuoka, Edward J	Edward.J.Masuoka@nasa.gov

660.0-006-03	ASD Blueshift Support	This work activity is centered on support for the Astrophysics Science Division (ASD) Blueshift project. Blueshift is the social media outlet that provides the public with "backstage access" to the science, missions, activities, and people of the ASD. The contractor will work with other Blueshift personnel to write blog entries, produce podcasts and videos, maintain and update the Blueshift website, and manage the Blueshift presence on social media channels such as Twitter and Facebook. The contractor will make presentations and pursue collaborations related to Blueshift and the ASD's social media activities. The contractor will also travel to represent Blueshift as needed.	Smale, Alan P	Alan.P.Smale@nasa.gov
660.1-003-03	Swift Science Center Support	Provide proposal support the Swift Science Center (SSC) Guest Investigator Program.	Marshall, Francis E	Francis.E.Marshall@nasa.gov
660.1-004-01	NuSTAR Peer Review Support	Provide proposal and software development support for the NuSTAR Peer Review.	Markwardt, Craig B	craig.b.markwardt@nasa.gov
660.2-001-03	ASD Computing & IT Support	computing environment including desktop and data center hardware, virtual systems and software. System administration includes the installation and secure configuration and patch maintenance of the operating systems and installed software packages following center and agency mandatory procedures and guidelines. System administration also includes account management; providing users that have received proper authorization through the Agency documented approval processes, such as IdMax, access to the requested resource and revoking access when the Agency authorization is revoked. The Contractor shall assist in the acquisition of new IT components by defining requirements, making recommendations and obtaining SEWP quotes for new IT hardware, software, sub-systems and peripherals. The Contractor will install, maintain and troubleshoot private networks and the switches that support them. The Contractor must keep up with IT market trends and be knowledgeable of cutting edge technologies. The Contractor will have expertise in and be responsible for the installation, maintenance and troubleshooting of Linux, Windows 7, Windows Server, Mac OS X, and Data OnTap operating systems. If a new operating system is requested, the Contractor will discern if it can be supported. The Contractor will track all IT hardware and software used in the division. The Contractor will track all instances where users are granted elevated privileges. The Contractor will assist in formulating and maintaining security plans and adjusting system configurations where necessary to conform to the required controls specified within those security plans. The contractor will assist in any security audit or investigation when required. The Contractor will recommend division policy changes to the ATR regarding all items defined above. The Contractor shall be responsible for implementing directives from the GSFC Chief Information Officer including mandatory security issues, testing, email and system logging regulations. The Contractor shall assist in defining requirements for the acquisition of new and updated software and shall install, upgrade and maintain science software such as IRAF/SDAS/PROS, IDL, Mongo, Mathematica, NAG, Object Center, Utilities, word/text processing software such as TeX/LaTeX and Framemaker; The Contractor shall be responsible for acquiring new IPs to add new hosts to the network, and troubleshooting network related problems. Coordination with ACES, when appropriate, is also required. The Contractor shall be responsible for planning, monitoring, and implementing system and	Newman, Phillip A	Phillip.A.Newman@nasa.gov
660.3-001-03	ASD Technical Support	This activity provides support for the design, construction, analysis, and troubleshooting of electrical/electronic systems in the Astrophysics Science Division.	Dobson, Norman K	norman.k.dobson@nasa.gov

661.0-003-03	Fermi Science Support Center	The contractor shall provide a variety of services related to Fermi mission operations, data archival, access and analysis, including software systems engineering, application development, configuration management, integration, and testing of web-based data access software and analysis software for the Fermi Science Support Center (FSSC) at GSFC.	Gehrels, Neil A	Cornelis.A.Gehrels@nasa.gov
661.0-006-03	Astro-H Software Development	This work activity is dedicated to software and user support for the upcoming Astro-H mission, currently scheduled for launch in February 2016. Astro-H has four instruments with distinct analysis and calibration needs. The software to be written shall perform reformatting, calibration and analysis of the data taken from these different instruments.	Angelini, Lorella	lorella.angelini-1@nasa.gov
661.0-007-00	Astro-H S/W Development & Logistical Support	The contractor shall provide operational, programming, system management, and database development support with contractor staff located at the ISAS, Sagamihara, Japan. The staff will be responsible for operational and logistical support for the Astro-H project at the ISAS as well as supporting the post operation for Suzaku, Sagamihara Japan.	Angelini, Lorella	lorella.angelini-1@nasa.gov
662.0-001-03	HEASARC Database and Web Support	This work activity provides support for the HEASARCs database and archive and ensures that they are fully available to the science and public communities. The contractor shall maintain and ensure quality of HEASARC data holdings; develop and maintain software systems for access to HEASARC data; incorporate new missions and datasets into the HEASARC; support collaborations with other NASA and non-NASA archives; support science research with HEASARC resources; support development and enchancement of VO interfaces to HEASARC archives in coordination with other NASA centers.	McGlynn, Thomas A	Tom.McGlynn@nasa.gov
662.0-002-03	HEASARC Software Support	The contractor shall support all aspects of HEASARC data analysis software, including development, maintenance, configuration management, testing, and public releases.	Smale, Alan P	Alan.P.Smale@nasa.gov
662.0-004-03	XMM-Newton Mission-specific Software Support	This work activity provides for software development, testing, maintenance and support for XMM-Newton mission-specific software.	Snowden, Steven L	steven.l.snowden@nasa.gov
662.0-005-03	Instrument Development for the X-Ray Astrophysics Laboratory	The contractor will supply mechanical and engineering design and fabrication services to several X-ray Astrophysics R&D activities. The Vendor may supply laboratory infrastructure maintenance and upgrades, and may participate in instrument characterization and testing. All work under this contract will support X-ray Astrophysics Laboratory instrument development. The contractor shall provide the facilities, personnel, services, tools, and equipment necessary to support instrument prototyping and development activities. Fabrication will be primarily at the Vendor facility. Acceptance, integration, test, and characterization will be primarily at GSFC facilities. Vendor may participate in integration and test activities using Government Furnished Equipment and Facilities.	Olsen, Lawrence G	lawrence.g.olsen@nasa.gov
662.0-006-03	X-Ray Microcalorimeter Development Support	The contractor shall provide research and development, fabrication and assembly, and software development for developing advanced high resolution x-ray microcalorimeters (both silicon-based and superconductor-based) and their near-term applications (laboratory astrophysics and sub-orbital observations). This includes development in support of the Astro-H and ATHENA missions.	Kilbourne, Caroline A	Caroline.A.Kilbourne@nasa.gov
662.0-010-02	Polarimeter Development & Engineering Support	This work activity covers design, optimization, and fabrication support of polarimeter detector and signal processing prototypes and instruments for projects such as NICER, the XACT sounding rocket payload, negative ion Time Projection Polarimeters, and instruments proposed in response to NASA or other solicitations under the Explorer, APRA, or similar programs.	Hill-Kittle, Joanne E	joanne.e.hill@nasa.gov

663.0-001-01	LISA Pathfinder Programming Support	LISA Pathfinder (LPF), an ESA-led mission with NASA contributions, is a technology demonstrator mission for a future space-based gravitational wave detector. LPF currently expects to launch in September 2015. This task provides support in refining and maintaining the data analysis infrastructure at GSFC. After launch and a ~3mo period of cruise and commissioning, LPF will begin science operations. The baseline mission plan calls for 180 days of operations split into two 90-day segments. The first segment will be utilize the European-provided LISA Technology Package (LTP) payload whereas the second will utilize the NASA-provided Disturbance Reduction System (DRS). An extended mission of an additional ~ 6mo is also being considered. LPF will operate like a laboratory apparatus, executing a series of pre-defined experiments on a daily schedule. Daily ground contacts will provide the data from the previous days experiment and an opportunity to re-plan experiments for the remaining mission timeline. Consequently, rapid data analysis is a key element of LPF. The European ground-segment is divided into two major centers. The Mission Operations Centre (MOC) will communicate directly with the spacecraft as well as run a high-fidelity, hardware-based mission simulator. Data from these two sources will be placed on a server in the form of "raw" telemetry packets. The Science Technology Operations Centre (STOC) will convert this data into a form known as "Analysis Objects" (AOs) which will then be placed into repositories (databases) on a server for the user community to access. The STOC will also run it's own simulator of the LTP instrument. The DRS mission operations will be conducted from JPL, who will access data directly from the MOC in the form of raw packets. JPL will provide these to the GSFC team but will not perform any conversion to AOs (JPL does not use the AO format in its analysis). JPL will also run a simulator of the DRS that produces raw packet data. The GSFC team is in a unique position of accessing and synthesizing data from both the LTP and DRS missions. We also run our own set of mission simulators designed to cover both LTP and DRS as well as interactions between the two for a possible joint operations phase. We are seeking scientific programming support for the LPF Auxiliary Data Analysis Center at GSFC, requiring familiarity with mySQL and object-oriented programming. Experience with MATLAB and Ruby are also desired.	Thorpe, James I	james.i.thorpe@nasa.gov
665.0-001-03	LAMBDA Data Archive	The contractor shall assist developing and maintaining the Legacy Archive for Microwave Background Data and Analysis (LAMBDA) data center, archival data, and associated web site. This includes development of web site, underlying database infrastructure, archive features and tools. It also includes the selection, preparation, ingest, and processing of CMB data sets. Finally,the contractor should work to better integrate LAMBDA with the HEASARC.	Switzer, Eric R	eric.r.switzer@nasa.gov
665.0-003-03	Cosmic Microwave Background (CMB) Observations and Instrumentation	Support development, testing, and deployment of instruments to measure the cosmic microwave background.	Kogut, Alan J	Alan.J.Kogut@nasa.gov
665.0-007-03	IR Instrument Development	The purpose of this Work Activity is to support the development of IR, far-IR, and submillimeter instruments, and the technology and infrastructure that are required for those instruments. The effort supplied under this Activity includes technology development, design, fabrication, testing, calibration and characterization, field and flight operations, as well as scientific data analysis and modeling.	Moseley, Samuel H	Samuel.H.Moseley@nasa.gov

665.0-011-03	Long Wavelength Detector Development	Provide development support for components, instrumentation, and equipment for test, fabrication, and assembly of long wavelength detectors for astrophysical research.	Wollack, Edward J	Edward.J.Wollack@nasa.gov
665.0-012-03	Low Noise Electronics for LISA Metrology	The Laser Interferometer Space Antenna (LISA) is a NASA/ESA planned gravitational wave sensor. The contractor shall provide engineering support for the eLISA Prototype Telescope risk reduction project including, but not limited to materials choice, mechanical design and analysis, CAD support, systems engineering support, and testing support as needed. The contractor shall also provide engineering support for ongoing optical bench development effort.	Livas, Jeffrey	Jeffrey.Livas@nasa.gov
665.0-016-03	Suborbital Far-IR Instrumentation	The purpose of this Work Activity is to support the development of detector technologies for far-infrared and millimeter-wavelength instruments on suborbital missions. The effort supplied under this activity includes technology development, testing, calibration and characterization.	Benford, Dominic J	Dominic.J.Benford@nasa.gov
665.0-017-03	CLASS Detector Testing Support	GSFC is currently developing detectors for the CLASS (Cosmology Large Angular Scale Surveyor) instrument in collaboration with Johns Hopkins University. The Observational Cosmology Laboratory is working closely with the Detector Development laboratory to build and deliver these detectors. The purpose of this work activity is to support a lab technician to play a major role in testing detector parts. The contractor will be responsible for designing/fabricating laboratory test setups in collaboration with senior personnel and operating cryogenic vacuum systems and reporting the results of the detector tests in a timely manner. General experimental skills are also required. These include, but are not limited to experience with electronics, data acquisition, mechanical design, and cryogenics.	Wollack, Edward J	Edward.J.Wollack@nasa.gov
665.0-018-03	Galactic Dust Emission Studies	This activity will provide assistance in the investigation of the potential implications of polarized galactic dust emission on the measurement of the polarization of the cosmic microwave background. This will consist of modeling the polarized dust emission based on published literature. In addition, archival data will be used to constrain the models. Finally, it will be necessary to simulate mission architectures to test the efficacy of such architectures for removing foregrounds. This activity will also correlate data from the Planck mission to other missions, notably COBE/FIRAS data. Planck maps of the sky will be recalibrated and sources of systematic error in the maps will be investigated. Multi-mission data will be used to characterize sources of uncertainty and to derive upper limits on the diffuse component of the Cosmic Infrared Background and on possible dust extinction.	Kogut, Alan J	Alan.J.Kogut@nasa.gov
667.0-005-03	Goddard Integral Field Spectrograph Support	Support development of a visible-light integral field spectrograph and support characterization of a photon-counting detector. There are two instruments currently supported -- the Goddard Integral Field Spectrograph (GIFS) at Apache Point Observatory and the Prototype Imaging Spectrograph for Coronagraphic Exoplanet Studies (PISCES) which is under development at Goddard and to be delivered to JPL in mid-2016.	McElwain, Michael W	michael.w.mcelwain@nasa.gov
667.0-011-03	BETTII Engineering Support	The contractor shall provide electrical and systems engineering support for the Balloon Experimental Twin Telescope for Infrared Interferometry (BETTII). Specific tasks will include: a.) Designing and building boards for the cRio b.) Designing and building the flight harness c.) Ultra-quiet Jfet follower and capacitive bridge circuit and driver circuit for the cold delay line d.) Power conditioning, load isolation and distribution box e.) Assist R. Barclay with systems engineering tasks	Rinehart, Stephen A	stephen.a.rinehart@nasa.gov

667.0-013-02	MHD Simulations of Stellar Atmospheres	Shall investigate the question "Is chromospheric heating physically coupled with the phenomenon of mass loss in cool evolved stars?" Tasks: Examine the role of Alfven waves as a viable source of coupling of stellar photospheres with their winds through energy dissipation and momentum deposition for giant and supergiant stars. Employ a 1.5D and 2.5 D magnetohydrodynamic (MHD) code with a generalized Ohm's law to study propagation of Alfven waves generated along a diverging magnetic field from in a partially ionized magnetized atmospheres of cool evolved stars. Include effects of ion-neutral collisions in magnetized weakly ionized chromospheric plasma on resistivity and the appropriate grid resolution.	Carpenter, Kenneth G	Kenneth.G.Carpenter@nasa.gov
667.0-014-02	MHD Interactions of Stellar Coronal Winds	Apply state-of-the-art MHD codes to study the interactions of close-in exoplanetary magnetospheres with their stellar winds, quantify how efficiently magnetic reconnection can deposit energy into the planet's atmosphere, and compare "hot-Jupiter" and Super-Earth magnetospheres with their colder cousins in the Solar system. Background: Close-in gas giants in other stellar systems are subject to extreme radiation environments and stellar wind conditions. It has been hypothesized that magnetic reconnection between the stellar and planetary magnetic fields in such systems might result in "flare like" energy release. If a significant fraction of this energy is deposited into the planet's atmosphere, the resulting heating would cause rapid expansion and loss of the atmosphere. However, many estimates of the reconnection heating rate in the astrophysics literature make use of empirical solar-wind-magnetosphere coupling functions tailored to the Sun-Earth system, and it is not clear whether such coupling functions can be extended to the extreme conditions of "hot Jupiters" and SuperEarths.	Danchi, William C	William.C.Danchi@nasa.gov
667.0-015-00	Visible Nulling Coronagraph Segmented Aperture Interferometric Nulling Testbed Support	The Segmented Aperture Interferometric Nulling Testbed (SAINT) will be a macroscopic scale segmented aperture telescope emulator that is to be used to evaluate a Visible Nulling Coronagraph (VNC) as an exoplanet detection and characterization approach for future NASA exoplanet missions. SAINT will be fabricated, assembled and aligned in the state-of-the-art VNC lab at NASA/GSFC over the time frame of FY16 and FY17. FY16 work is to include assembly and alignment of SAINT and be able to relay light through the SAINT and into the VNC (inside a vacuum tank) and demonstrate initial imaging. Full SAINT operations will commence in FY17 with integration of the VNC's closed loop control (100+ Hz) with SAINT's closed loop control (4 Hz). This will result in a coupled and optimization control system capable of demonstrating contrasts and inner working angles, through a segmented telescope, suitable for exoplanet science.	Bolcar, Matthew R Bolcar, Matthew R	matthew.bolcar@nasa.gov matthew.bolcar@nasa.gov

670.0-001-03	Heliospheric Science Story Development	SOW - Statement of Work* The contractor shall lead the editorial component of the heliophysics communication efforts. Namely, the task lead will supervise all writing, imagery and posting regarding heliophysics topics for NASA websites, features, press releases, media advisories, mission support and social media. Staff also works closely with the NASA Goddard Office of Communications to coordinate messaging for the Goddard Heliophysics Science Division, helping ensure a unified and cohesive editorial face to the media and/or general public. Staff works with NASA HQ Heliophysics Division staff to coordinate communications with HQ Office of Communications and other NASA centers. Such work includes: Assume dual roles as NASA HQ Heliophysics Communications Liaison and also Goddard Heliophysics Public Affairs Officer. Specifically: 1) Coordinate with Goddard's Office of Communications, Goddard's Heliophysics division, NASA HQ Heliophysics Division , NASA HQ Office of Commnunications and other NASA centers, and mission and science partners for cohesive presentation of information and news about NASA's Heliophysics research and missions. 2) Work with scientists, the Office of Communications and outside institutions to create coordinated mission communications for upcoming and current heliophysics missions and projects. 3) Work with scientists and Office of Communications to conduct assessments of the news value of selected journal articles and meeting presentations; recommend appropriate Office of Communications products based on this evaluation. 4) Work with scientists and the Office of Communications to supervise the conception, writing, editing, formatting and posting of 20-30 media products annually. 5) Oversee, review and edit heliophysics stories written by other Goddard Office of Communications staff. 6) Supervise a multimedia team to create appropriate visuals, including but not limited to stills, video, and narrated web shorts. 7) Work with scientists to improve their communication skills as necessary and help coordinate messaging for the Heliophysics Science Division as a whole -- which may include conducting or arranging media training where appropriate. 8) Respond to inquiries from journalists for interviews and visuals related to media products created by the team. 9 Oversee social media for the Heliophysics Science Division, working in close parallel with the Goddard and HQ social media teams. 10) Liaise with NASA-wide Office of Communications projects.	Kekesi, Deanna L	deanna.l.kekesi@nasa.gov
670.0-002-03	SPDF Heliophysics Data Services	Support the Space Physics Data Facility (SPDF) project as it provides unique correlative multi-mission and cross-disciplinary value-added heliophysics data services and special products. SPDF is responsible to ensure maximal clarity in the meaning and appropriate use of data; to provide all data services robustly, with high performance, unique functionality and taking maximum advantage of automation and distributed capabilities in the broader community; to engage on a continuing basis with the external science community, to establish science data needs against SPDF's capabilities and set future SPDF priorities; and to manage all aspects of SPDF to satisfy NASA and community requirements for system security, the integrity and preservation of data and continuity of data services.	McGuire, Robert E	Robert.E.McGuire@nasa.gov
670.0-007-03	HSD Laboratory Management Support	Support the Heliophysics Science Division (HSD) as Laboratory Manager (LM) by acting as liaison between government, contractor, and project personnel. The LM shall utilize the Laboratory Manager's Handbook (and other resources) to identify NASA/GSFC requirements that relate to a specific laboratory, and promote compliance by parties that utilize the LM's laboratory space(s).	Maddox, Marlo M	marlo.m.maddox@nasa.gov

670.0-008-03	Fabrication Support for Solar Imagers and Spectrographs	Support the fabrication of detector hardware and associated test hardware for space-borne and sub-orbital solar imagers and spectrographs in Code 670, including the EUNIS sounding rocket instrument.	Maddox, Marlo M	marlo.m.maddox@nasa.gov
670.0-009-03	HSD Computer System Support	Provide computer and network system administration support to the Heliophysics Science Division (HSD).	Maddox, Marlo M	marlo.m.maddox@nasa.gov
670.0-010-03	ISIS Data Processing	Support ISIS digital-data Geospace activities to derive solar-wind and topside ionospheric parameters.	McGuire, Robert E	Robert.E.McGuire@nasa.gov
670.0-013-01	Eclipse 2017 Support	Design, develop, coordinate and launch NASA's response to the August 2017 total solar eclipse across US. Support activities include: - Heliophysics, planetary, astrophysics, and Earth science Content development - Web design and development in coordination with the NASA portal - Graphics design - Social media campaigns - Art, history, and music program development - Citizen Science - Coordination with the AAS Eclipse 2017 planning group - Content training to existing networks - Development of K-14 educational activities - Coordination with the offices of education and communications - Educational technology applications development - Big event planning and execution to include coordination of a live broadcast on the path of totality - Coordination of coordinated observing campaigns - Communications with amateur astronomers and other special interest groups - Presentations at conferences and workshops - Travel to AAS meetings and eclipse venues - Identify, collect, and develop materials for distribution to schools, museums, and other venues - Provide for program evaluation	Young, Christopher A	c.a.young@nasa.gov
670.0-014-01	3D Sun Reboot	Upgrade 3D Sun Android app, including refactoring obsolete push alert code and interfaces, adding Twitter news item feeds, and supporting new iPhone devices.	Newmark, Jeffrey S	jeffrey.newmark@nasa.gov
670.0-015-01	Heliophysics Education Support	Support Heliophysics Education activities that include: - developing education and public outreach (EPO) websites for programs such as Heliospotlight, Sun-Earth Days, and Eclipse 2017 - developing and coordinating NASA's response to the August 2017 total solar eclipse across the US. - supporting the STEM Innovation Lab through ongoing acquisition, implementation, maintenance, and review of educational technology-based applications. - creating Virtual Reality (VR) applications using new Oculus Runtime in Unity 3D to produce game-ready 3D satellite models. - writing, editing, and posting Heliophysics topics for NASA websites, news features, press releases, media advisories, mission news, and social media.	Young, Christopher A	c.a.young@nasa.gov
670.0-016-01	Magnetic Reconnection Studies	Perform research on magnetic reconnection using spacecraft (MMS and Cluster) data, computer simulation data, and theoretical analysis.	Hesse, Michael	Michael.Hesse@nasa.gov
670.0-017-00	HSD Logistics Support	Support planning, designing, developing, managing, and maintaining organizational processes and controls for the Heliophysics Science Division (HSD).	Maddox, Marlo M	marlo.m.maddox@nasa.gov
671.0-003-03	SDO Science Data Visualization	Support website development, science data visualization and dissemination activities for the Living With a Star (LWS) Program, Solar Dynamics Observatory (SDO) mission, and the Helioviewer data browser.	Pesnell, William D	William.D.Pesnell@nasa.gov
671.0-005-03	Solar Mission Science Operations Support	Support science and instrument operations for the Extreme Ultraviolet Imaging Telescope (EIT) and the Large Angle Spectrometric Coronagraph (LASCO) instruments on the Solar and Heliospheric Observatory (SOHO).	Gurman, Joseph B	Joseph.B.Gurman@nasa.gov

671.0-006-03	STEREO Science Center and SDAC Support	Support the STEREO mission Science Center, including: processing STEREO beacon data; distributing science data; coordinating mission observations; communicating mission science; maintaining STEREO website; and managing related software and computer hardware. Support the Solar Data Analysis Center (SDAC) in the archival and distribution of data from past, present, and future space solar physics missions, including support for the development of the Virtual Solar Observatory. Support Heliophysics communication and outreach through development of print, graphic, and visualization media for distribution to schools, museums, outreach events, and online platforms.	Gurman, Joseph B	Joseph.B.Gurman@nasa.gov
671.0-007-03	STEREO COR1 Support	Provide engineering, operational, and scientific support to STEREO Coronagraph (COR1).	Davila, Joseph M	Joseph.M.Davila@nasa.gov
671.0-012-03	Solar Orbiter Mission Support	Provide subject matter expertise and support to meetings and activities relevant to the Solar Orbiter mission. Examples of such activities include (but are not limited to): calibration procedures and execution; science operations and planning; and data product definition, processing, and archiving.	Stcyr, Orville C	Orville.C.StCyr@nasa.gov
671.0-014-01	EUNIS Mechanical Support	Support the Extreme Ultraviolet Imaging Spectrograph (EUNIS) instrument with mechanical design and fabrication of ground support equipment, bonding of fiber optic couplings, and laboratory and field sounding rocket operations. The EUNIS instrument investigates heating and cooling processes in the solar atmosphere by obtaining high spectral and temporal resolution observations of extreme ultraviolet spectral lines.	Daw, Adrian N	adrian.daw@nasa.gov
671.0-015-01	HEXITEC Detector System Support	Shall design and develop the focal plane assembly for the High Energy X-ray Imager Technology (HEXITEC) detector system for solar hard X-ray observations.	Christe, Steven D	steven.d.christe@nasa.gov
671.0-016-02	ONSET Occulter Mechanism Design	Provide engineering support services to develop a conceptual design and performance parameters for the Extendable Optics Bench for the ONSET instrument.	Davila, Joseph M	Joseph.M.Davila@nasa.gov
671.0-017-00	Capturing Coronal Dynamic Phenomena	Support an informatics project to develop new algorithms and data products for the study of solar eruptive and dynamical events. Participate in scientific analysis of events using the developed code and refine algorithms based on analysis results.	Thompson, Barbara J	Barbara.J.Thompson@nasa.gov

672.0-001-03	VEPO IHY-IPY Support Services	a continuing NASA-supported initiative to develop automated capabilities for discovery and access of heliospheric energetic particle and supporting ancillary data in the U.S. and international heliophysics data environment. VEPO improves access and usability of selected Heliospheric Network and sub-orbital NASA heliospheric energetic particle data sets as an ongoing development effort within the evolving heliophysics virtual observatory program of NASA. The VEPO team is organized to operate as a focus group within the broader heliospheric science scope of the Virtual Heliospheric Observatory (VHO) and is working to support user queries for VEPO-relevant data products through existing interfaces and evolving middleware of VHO. This approach enables complex queries for distributed data types and key parameters registered with VHO. In the third year of extension from the original three-year project, VEPO priorities are on continuing registrations of metadata in VHO for new and updated energetic particle data products from NASA and international heliospheric spacecraft and on enabling comparison of proton, helium, and heavier ion flux spectra from instruments on the same and different spacecraft, and on supporting, in collaboration with the responsible instrument scientists the related intercalibration of flux data from instruments with contiguous and overlapping energy coverage. Selected ground-based neutron monitor data products are also supported. The metadata descriptions must conform to evolving standards of the Space Physics Archive Search and Extract (SPASE) standard lexicon in XML format to enable data queries and interoperability with distributed U.S. and international data repositories and other virtual observatories. Data product registration, SPASE evolution, and continuing refinement for the descriptive metadata is undertaken in collaboration with the extended VEPO team at Goddard, Applied Physics Laboratory Johns Hopkins Laboratory, University of New Hampshire, Fundamental Technologies LLC of Lawrence, Kansas, and the Ulysses Data System (ESTEC-ESA, the Netherlands) and through interaction with open community forums for SPASE and VxO development. The VEPO web site is maintained and updated to service to data users and providers, while also occasionally being enhanced for highlighting of special events, e.g. the Voyager heliopause crossing data, and for direct links for data product sources independent of the more general query functionality of VHO. This task additionally supports the legacy of the International Heliophysical Year 2007-2009 through maintenance and	Cooper, John F	john.f.cooper@nasa.gov
672.0-006-03	VHO/VMO Software Support	Provide programming support for the development of the Virtual Heliospheric and Magnetospheric Observatories (VHO/VMO). Tasks include: - Maintain and enhance the VHO/VMO web server, data repository, and query interface code base (MySQL and PHP). - Formulate and implement procedures to harden code against current and future vulnerabilities. - Develop PHP sanitization and verification modules. - Manage ingest of VHO/VMO spacecraft data products and metadata. - Provide uniform environment for searching and retrieving centralized and distributed VHO/VMO datasets.	Szabo, Adam	Adam.Szabo-1@nasa.gov
672.0-007-03	Voyager Software and Data Analysis	Support processing and analysis of cosmic ray data from the Voyager Cosmic Ray Subsystem and the IMP-8 Goddard Medium Energy (GME) experiment.	Lal, Nand	Nand.Lal-1@nasa.gov

673.0-002-03	VWO Science Support Services	The Virtual Wave Observatory (VWO) is a NASA Heliophysics VxO that aims to make all Heliophysics plasma wave and radiation data searchable, understandable, and usable by the Heliophysics community. Support activities include: providing uniform and robust access to distributed space plasma wave and radiation data, metadata, and services for the wave-oriented Heliophysics research community; and extending Heliophysics Virtual Observatories into wave-specific datasets (solar wind, interplanetary space, terrestrial magnetosphere and ionosphere, and planetary magnetospheres) that span Heliophysics domains. Additional activity includes supporting the design, development, and maintenance of the Living with a Star Targeted Research and Technology (LWSTRT) website by: developing and maintaining a user-interface for proposal highlights (inc. citations and presentations); incorporating NASA/HQ and Steering Committee recommendations; and ingesting highlights from previous year proposals.	Fung, Shing F	shing.f.fung@nasa.gov
673.0-007-01	CAPS and IMS Development Project IT Support	Support the IMAP Ion Mass Spectrometer with maintenance of data files on laboratory computers, upgrade of various data analysis and plot programs developed for the data files, and attendance at informal meetings as needed. Support the Cassini/CAPS instrument by analyzing individual orbit crossings plots, maintaining time-of-flight (TOF) data analysis software, performing science data processing, and verifying algorithms for computing calibration curves.	Sittler, Edward C	Edward.C.Sittler@nasa.gov
674.0-003-03	Electric Field Sounding Rocket Support	Support development, design, construction, testing, and deployment of sounding rocket instrumentation for measuring characteristics of electromagnetic fields near the Earth. Support development of instrument electronics for measuring electric fields by sounding rocket experiments.	Pfaff, Robert F	Robert.F.Pfaff@nasa.gov
674.0-004-03	MMS EPO Support	Provide Education and Public Outreach (EPO) support for the Magnetospheric Multiscale (MMS) mission. Responsibilities include the planning, coordination, implementation, and management of the MMS mission's outreach activities to meet NASA's EPO goals and guidelines.	Le, Guan	Guan.Le@nasa.gov
674.0-005-03	Space Weather Laboratory Science Support	Investigate the physics of the slow Solar wind by using numerical simulations and comparisons of model predictions with observational data. Support non-civil servant travel to local GSFC and non-local Space Weather Laboratory-related meetings and workshops.	Antiochos, Spiro K	Spiro.Antiochos@nasa.gov
674.0-007-03	CCMC Systems and Network Support	Provide systems and network administration support to peripheral, desktop, and Beowulf cluster systems; ensure adherence to Agency and Center security standards for the Community Coordinated Modeling Center (CCMC).	Kuznetsova, Maria M	maria.m.kuznetsova@nasa.gov
674.0-008-03	Electric Fields Science Support	Support archiving, analysis, and presentation of electric and magnetic field data obtained in Earth's ionosphere and magnetosphere from rocket campaigns and satellite missions. This task involves the archiving and analysis of data from the Communication/Navigation Outage Forecasting System satellite as well as various rocket campaigns. Provide computer system support for a heterogeneous collection of systems (Linux and Macs) as well as a large, 36-node Beowulf cluster.	Pfaff, Robert F	Robert.F.Pfaff@nasa.gov
674.0-010-03	CubeSat Engineering Support	Support the development of power supply boards for CubeSat nanosatellites.	Jones, Sarah L	sarah.l.jones@nasa.gov
674.0-012-01	CubeSat Instrument Support	Provide as-needed support for fabrication and assembly of CubeSat instrument components, including circuit boards and power supplies.	Jones, Sarah L	sarah.l.jones@nasa.gov

674.0-014-00	MMS Data Analysis Support	Support the analysis of magnetic field data obtained from the Magnetospheric Multiscale (MMS) satellite mission. This task involves working with MMS FIELDS team members to provide higher level analysis of the magnetic field data. This analysis will involve cross-correlating magnetic field data with other MMS data sets as well as statistical analysis. Tools for this task will be primarily the Interactive Data Language (IDL) and the Python programming language. Create custom display and analysis tools used for instrument data obtained on MMS. These tools will be based primarily on IDL as the MMS project has standardized on using IDL for data access. The display tools will be a combination of IDL stand alone scripts as well as graphical data display tools built using the IDL Widget toolkit. In addition, some Python code will be used for tasks requiring back end interaction with the operating system. Provide computer system support for processing and analysis of MMS data sets. The MMS FIELDS team maintains both a data processing machine for calibrating higher level (science ready) magnetic field data products as well as a server for giving local researchers access to data products and quick look plots. Support will be provided for ensuring that the data products are online and provide any additional support needed for troubleshooting or maintaining the data processing system.	Le, Guan	Guan.Le@nasa.gov
690.0-003-03	SSED Systems & Network Support	Provide desktop, Division server, and peripheral system administration support and network administration for the Solar System Exploration Division. Ensure adherence to Agency and Center security standards.	Simpson, Jeffrey M	Jeffrey.M.Simpson@nasa.gov
690.0-004-03	Solar System Exploration Story Development	The contractor will develop Goddard Space Flight Center Planetary science stories; write press releases and web articles based on Goddard Planetary science mission activities, research and development; and prepare content for NASA portal websites and the Planetary Division website.	Glaze, Lori S	lori.s.glaze@nasa.gov
690.1-003-03	NSSDCA Ingest and Archive	NSSDCA is a multidiscipline archive supporting the permanent archiving of NASA's Space Science data and related metadata. NSSDCA acquires data and metadata from NASA's active archives, and, when mediated by these active archives, directly from space flight missions and individual principal investigators. The primary data provider is the Planetary Data System (PDS). As NSSDCA acquires scientific data, a major requirement is to acquire sufficient documentation to ensure that the scientific data is independently understandable, preservable, and usable into the indefinite future. The details of how this is accomplished will evolve and typically varies among the disciplines. This work activity focuses on data ingest, specifically the development of software and procedures that support the ingest and archiving of data within the NSSDCA. Specifically, the contractor will develop, maintain, and operate ingest and archival systems to process current 'volume' based PDS submissions and future 'bundle' based submissions. The contractor is expected to manage the NSSDCA archives to ensure that data are received with sufficient supporting materials and that data and Preservation Description Information are packaged into Archive Information Packages to be reliably findable, retrievable, and usable into the indefinite future.	Williams, David R	David.R.Williams@nasa.gov

690.1-004-03	NSSDCA Data Management	The NASA Space Science Data Coordinated Archive (NSSDCA) is an archive for the long-term preservation of NASA-related space science data. The space science data are primarily lunar and planetary science data, but can include heliophysics data and astrophysics data as well. NSSDCA has a number of older data collections that constitute legacy data as well as newer data from NASA missions in accordance with arrangements made with the mission. Some arrive after the end of the mission. Some may be sent to NSSDCA during the mission. The agreements with the missions are often made by Memoranda of Understanding, Letters of Understanding or similar interactions. The data archive includes digital data, both on-line and off-line, as well as analog data in a variety of media including microfilm and microfiche, photographic negatives and positives, maps on paper, etc. The NSSDCA role in NASA data management has evolved to being the deep archive for the data rather than an active archive. NSSDCA assures that the data that are stored there will be available into the future. The data are sent to the NSSDCA, inventoried, and stored in accordance with an agreed storage approach or bundling of the data and can be extracted by requesting the data according to the bundle needed. NSSDCA has the responsibility of storing the data and retrieving the data upon request and assuring that none of the data are lost by transferring the data to new media as necessary to preserve the data. NSSDCA also assures that sufficient information accompanies the data so that they may be used correctly and independently without the need to contact the original data providers. Information about the data providers and relevant metadata also accompanies the data, however. This work activity focuses on the identification, preservation, and maintenance of the metadata that allows data archived at the NSSDCA to be located and discerned. This includes the development and maintenance of software and procedures that support the identification of new data submissions from the Planetary Data System (PDS), both in PDS3 and PDS4 forms, as well as any other data as directed by the government. This task also supports a variety of software and hardware administration activities (database, servers, desktop/laptop) and science support activities.	Grayzeck, Edwin J	Edwin.J.Grayzeck@nasa.gov
690.1-007-03	PDS Management Support	The Solar System Exploration Data Services Office (SSEDSO) has been assigned the responsibility by NASA Headquarters to supply project management services for the Planetary Data System (PDS) and other duties as assigned. This task requires occasional travel to appropriate science, Management Council (MC) and Working Group (WG) meetings, to present activities, demonstrate capabilities, or to interact with PDS node personnel, PDS users, and potential or existing data providers.	Morgan, Thomas H	thomas.h.morgan@nasa.gov
690.1-009-03	Lunar Data Node	The contractor shall be responsible for supporting the restoration of Apollo data sets of relevance to the new lunar exploration program. Travel Requirements: Occasional travel to support acquisition of lunar data from other archives and data providers, to support data reviewers who attend lunar data peer review panels, to promote outreach at conferences and workshops, or to interact with users and potential data providers may be required.	Williams, David R	David.R.Williams@nasa.gov
690.1-017-03	Lunar Coronagraph	To support the assembly, alignment, installation, and functionality of the GSFC lunar coronagraph at Winer Observatory.	Morgan, Thomas H	thomas.h.morgan@nasa.gov

690.1-018-02	Solar System Exploration & Integration	To provide science communication support for Planetary missions and general science related to planets, small bodies and missions related to the solar system.	Grayzeck, Edwin J	Edwin.J.Grayzeck@nasa.gov
690.1-019-02	LASER: Restoration of Hardcopy Apollo Data	The work activity will restore hard copy data sets on microfilm, microfiche, paper, and some magnetic tape. Most of the restoration will involve scanning of the hard copy media to produce tifs or PDFs. These will be stored and packaged as PDS data sets.	Williams, David R	David.R.Williams@nasa.gov
691.0-001-03	Scientific Support for the Messenger Mission	The contractor shall provide scientific support for the Astrochemistry Laboratory in the Solar System Exploration Division at NASA/ Goddard Space Flight Center. The contractor shall support the development of theoretical modeling for the x-ray and gamma ray emissions from planetary surfaces, assist in the calibration of space flight instrument systems, and develop scientific data analysis and interpretation software. In addition, the Contractor shall assist and support incidental activities necessary for maintaining laboratory operations. These activities will include, but are not limited to setting up experiments, analyzing data, recommending new laboratory test equipment, performing unique analysis in support of upcoming proposals, and supporting the laboratories' education and technology development programs. The programs being supported under this effort are the MESSENGER mission to Mercury and neutron-gamma ray planetary science instrumentation development through the NASA/ROSES program.	Parsons, Ann	ann.m.parsons@nasa.gov
691.0-002-00	Mini-EPMA Support	Provide support for the design and assembly of the mini-EPMA electron probe.	Lim, Lucy F	lucy.f.lim@nasa.gov
693.0-001-03	Cassini CIRS	Assist the Cassini CIRS Science and Operations Team with IT support, command file generation, uplink sequence verification and analysis, and data (both science and housekeeping) retrieval, validation, and archiving, instrument housekeeping data analysis, and database management.	Romani, Paul N	Paul.N.Romani@nasa.gov
694.0-001-02	Europa Clipper Lidar Mechanical and Electronics Support	Provide mechanical design support for the development of detector optical assembly packages based on the Europa Clipper laser altimeter proposal.	Sun, Xiaoli	xiaoli.sun-1@nasa.gov

694.0-002-01	CO2 Sounder Support	The contractor shall provide support for the design, integration, and testing of an airborne instrument to measure CO2 concentrations using remote sensing techniques and fiber amplifier technology. The contractor shall support data acquisition software development, electro-optical engineering, data analysis, detector electronics and support airborne campaigns as needed. Minor modifications to existing hardware is also expected which will involve some mechanical design and fabrication. The work requires that the contractor has intimate knowledge and hands-on experience with LIDAR instrumentation, optical alignment procedures, Erbium Doped fiber amplifiers, diode lasers, planar wave-guide amplifiers, electro-optical laboratory procedures, data analysis, detector electronics, electrical design and LabView programming. The work also requires that the contractor has detailed knowledge of the DRS e-ADP detectors and associated electronics, safe operating procedures and software. In addition, the contractor should be familiar with LabView LIDAR data acquisition software and be able to modify or debug it. The contractor should be able to read and analyze airborne data and derive important parameters, such as backscatter profiles, range, and other LIDAR quantities and correlate them with airplane data (REVEAL).	Riris, Haris	Haris.Riris-1@nasa.gov
694.0-003-01	CH4 Sounder Support	The contractor shall provide support for the design, procurement, integration, and testing of an airborne instrument to measure CH4 concentrations using remote sensing techniques and optical parametric technology. The contractor shall support data acquisition software development, detector electronics design and support airborne campaigns if needed. No mechanical design and fabrication is expected. The work requires that the contractor has knowledge and hands-on experience with LIDAR instrumentation, optical alignment procedures, data analysis, detector electronics, PXI data acquisition, fast digitizers, FPGA and LabView programming. The work also requires that the contractor has detailed knowledge of the DRS e-ADP detectors and associated electronics, safe operating procedures and software.	Riris, Haris	Haris.Riris-1@nasa.gov
695.0-001-03	Solar and Planetary Radio Astronomy Support	For the STEREO, Wind, and Van Allen Probes missions, ensure that the computer environments for processing and serving the data are routinely operational, develop and maintain data processing and analysis software, process data and ensure that it is routinely available to the user community, support analysis and archiving of data, and support web sites for scientific use and for outreach.	MacDowall, Robert J	Robert.J.Macdowall@nasa.gov

695.0-002-03	Planetary Missions Support	Support SSED laboratory magnetic field investigations and research activities in the general area of planetary magnetic fields and magnetic measurements. Create general purpose IDL procedures to analyze the in-flight performance of the fluxgate magnetometers aboard the MAVEN and Juno missions and to characterize the static and time-variable magnetic fields produced by the vehicles. Support TVAC testing of the Solar Probe Plus magnetometer. Develop strategies to correct ambient field estimates for spacecraft-generated magnetic fields. Shall apply the 3-D MHD modeling code to the interaction of the solar wind with the magnetospheres and induced magnetospheres of Jupiter and Mars, in the latter case, with emphasis on implications for stripping an early Mars atmosphere. Shall use the tools developed at CCMC (Code 674) to characterize the heliospheric plasma conditions (modeled) at Jupiter and Mars, as a tool to estimate time variations in the plasma environment of these bodies, throughout the prime science orbits.	Oliversen, Ronald J	Ronald.Oliversen@nasa.gov
695.0-003-03	Planetary Missions Mechanical Engineering Support	The task will provide Mechanical Engineering support to the Code 695 FluxGate Magnetometer (FGM) team. This support will include interacting with the GSFC personnel, the JUNO project at JPL, the spacecraft vendor Lockheed Martin (LM) in Denver, the Advance Stellar Compass (ASC) vendor Technical University of Denmark (DTU) in Denmark, the MAVEN project, and other commercial companies. In addition, mechanical design and development services for the Solar Probe Plus (SPP) magnetometer will be provided.	Oliversen, Ronald J	Ronald.Oliversen@nasa.gov
695.0-004-00	Planetary Missions Science Support	Support SSED laboratory magnetic field investigations and research activities in the general area of planetary magnetic fields, magnetic measurements, calibration, and document and graphics preparation. Jack Connerney will continue to serve as a MAVEN Co-Investigator for the MAG instrument, responsible for all decisions regarding MAG science, magnetometer operations, and health and safety.	Oliversen, Ronald J	Ronald.Oliversen@nasa.gov
698.0-001-03	Airborne and Spaceborne laser altimeter operational atmospheric range correction	Develop an operational capability to compute the atmospheric path delay for both spaceborne and airborne laser altimeter systems as well as GNSS, SLR, and DORIS stations. Develop an operational capability to compute mass loading displacements for altimeter bounce points. Develop a pipeline for processing GNSS radio occultation observations for deriving corrections to the surface pressure and path delay. Estimate mean biases, the rms of biases, the amplitude of annual and semi-annual bias variations and the bias trends over the territory of Antarctica and Greenland using GNSS radio occultation observations. Develop an empirical model of path delay biases due to systematic errors of the GMAO numerical weather model and realistic error budget of path delay prediction.	Luthcke, Scott B	scott.b.luthcke@nasa.gov
699.0-001-03	Mass Spectrometer Instrument Development Support	This work activity provides the engineering and technical support to propose, design, build, and test flight mass spectrometers and related components.	Harpold, Dan N	Dan.N.Harpold@nasa.gov

699.0-003-03	SAM Instrument Support	Shall provide on-site support for the Sample Analysis at Mars (SAM) instrument suite and test-bed. Shall provide engineering and technical support to maintain the test-bed and related components and to troubleshoot flight hardware anomalies.	Harpold, Dan N	Dan.N.Harpold@nasa.gov
699.0-005-03	MAVEN	Shall provide engineering and technician support for testing and repair of the MAVEN testbed unit (as necessary).	Harpold, Dan N	Dan.N.Harpold@nasa.gov
699.0-009-03	Planetary Environments Laboratory Meeting Support	Shall support logistics and travel arrangements for local and non-local Planetary Environments Laborary-related meetings and workshops	Harpold, Dan N	Dan.N.Harpold@nasa.gov
699.0-010-03	MOMA Support	Shall support machining, welding, and assembly for the Mars Organic Molecule Analyzer (MOMA) project as well as the design and development of flight and testbed hardware. Work shall be accomplished in the Code 699 laboratories at GSFC. Provide analysis of procurement needs for occasional urgent items and procurement support for specialty mission items.	Harpold, Dan N	Dan.N.Harpold@nasa.gov
699.0-011-02	OASIS	Shall provide engineering and technician support to build and assemble prototype instrumentation and related components and to provide post-testing support for the Organics Analyzer for Sampling Icy Surfaces (OASIS) instrument.	Getty, Stephanie A	stephanie.a.getty@nasa.gov
699.0-012-00	MOMA Integration and Testing Support	Provide engineering support for the MOMA Mass Spectrometer (MOMA MS). The primary support shall be with the MOMA I&T group that is responsible for integration, testing, and delivery to the ESA ExoMars project. Support shall also include, as necessary, assistance to the mechanical group for stress studies, final deliverables, and closeout work as work transitions into the I&T group. Work schedules and priorities shall be the responsibility of the MOMA I&T lead.	Harpold, Dan N	Dan.N.Harpold@nasa.gov